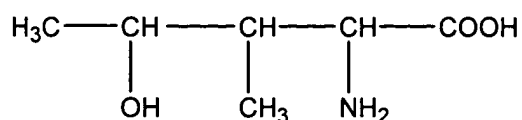


AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method of inducing an insulin sensitizing or insulin mimetic effect in a tissue of a patient having hyperinsulinemia ~~in need thereof~~, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

2. (Previously Presented) The method of claim 1, characterised in that said 4-hydroxyisoleucine and/or lactonic form thereof exercises an insulin mimetic and/or insulin-sensitizing effect at the level of a peripheral target tissue of insulin.

3. (Previously Presented) The method of claim 1, characterised in that said 4-hydroxyisoleucine and/or lactonic form thereof reduces phosphatase activity associated with the signaling route of the insulin receptor, and/or stimulates PI 3-kinase activity on IRS-1 and/or IRS-2.

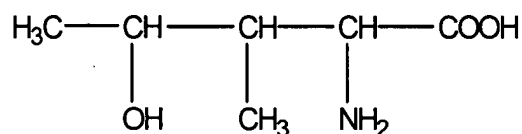
4. (Canceled).

5. (Previously Presented) The method of claim 1, characterised in that the 4-hydroxyisoleucine is presented in the form of its 2S, 3R, 4S isomer or the corresponding lactone.

6-12. (Canceled).

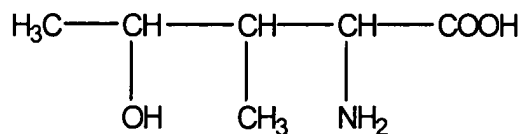
13. (Previously Presented) The method of claim 1, wherein administration of the 4-hydroxyisoleucine and/or lactonic form thereof reduces the need of the patient for exogenic insulin.

14. (Currently Amended) A pharmaceutical composition or a kit for the treatment of hyperinsulinemia ~~Type II diabetes~~, comprising both insulin and 4-hydroxyisoleucine of formula



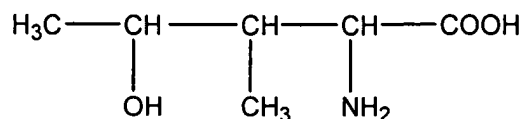
and/or the lactonic form thereof.

15. (Currently Amended) A method of inducing an insulin sensitizing effect in a tissue of a patient having hyperinsulinemia ~~in need thereof, wherein the patient has Type II diabetes~~, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

16. (Currently Amended) A method of inducing an insulin mimetic effect in a tissue of a patient having hyperinsulinemia in need thereof, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

17. (Previously Presented) The method of claim 1, further comprising administering insulin to the patient.

18. (Previously Presented) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is orally administered to the patient.

19. (Previously Presented) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered to the patient two times per day.

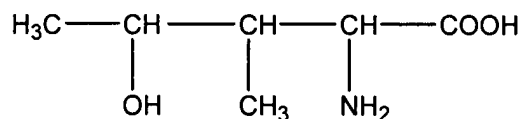
20. (Previously Presented) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered to the patient three times per day.

21. (Previously Presented) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered in the form of a capsule.

22. (Previously Presented) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered in the form of a tablet.

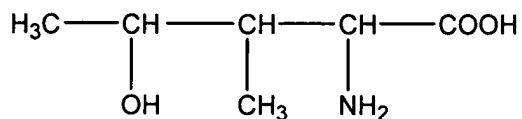
23-44. (Canceled).

45. (Currently Amended) A method to combat insulin resistance in a patient having hyperinsulinemia, comprising administering to the patient the (2S, 3R, 4S) isomer of 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

46. (Previously Presented) A method to combat hyperinsulinemia in a patient in need thereof, comprising administering to the patient the (2S, 3R, 4S) isomer of 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.